

Claims

[c1] I claim:

1. A topical skin darkening or skin tanning composition comprising:

(i) At least one tyrosinase substrate composition for melanin synthesis boost, and

(ii) At least one tyrosinase activator composition, and

(iii) A cosmetically or pharmaceutically suitable carrier composition or delivery system.

[c2] 2. A topical skin darkening or skin tanning composition comprising:

(i) At least one tyrosinase substrate composition for melanin synthesis boost, and

(ii) At least one tyrosinase activator composition, and

(iii) At least one skin surface coloring composition, and

(iv) A cosmetically or pharmaceutically suitable carrier composition or delivery system.

[c3] 3. A composition according to claim 1 wherein,

(i) From about 0.0001% to about 60% of at least one tyrosinase substrate composition for melanin synthesis boost, and

- (ii) From about 0.0001% to about 20% of at least one tyrosinase activator composition, and,
- (iii) From about 1% to about 99% of a cosmetically or pharmaceutically suitable carrier composition or delivery system.

[c4] 4. A composition according to claim 1 wherein tyrosinase substrate composition can be selected from, but not limited to tyrosine, dihydroxy phenylalanine, L-DOPA, Mucuna pruriens extract, catechol, and their chemical derivatives.

[c5] 5. A composition according to claim 1 wherein tyrosinase activator composition can be selected from, but not limited to copper ATP, Glutathione, Cystine, Cysteine, N-Acetyl-Cystine, N-Acetyl-Cysteine, copper cystine complex, copper cysteine complex, copper N-acetyl-cystine complex, copper N-acetyl-cysteine complex, copper tyrosine complex, copper L-DOPA complex, copper Mucuna pruriens complex, copper glutathione complex, copper carnosine complex, various copper chelates in which copper is concurrently bound with both oxygen and nitrogen electron donors, and combinations thereof.

[c6] 6. A composition according to claim 1 wherein cosmetically or pharmaceutically acceptable delivery system or carrier base can optionally include additional skin bene-

ficial ingredients selected from skin cleansers, surfactants (cationic, anionic, non-ionic, amphoteric, and zwitterionic), skin and hair conditioning agents, vitamins, hormones, minerals, plant extracts, anti-inflammatory agents, concentrates of plant extracts, emollients, moisturizers, skin protectants, humectants, silicones, skin soothing ingredients, analgesics, skin penetration enhancers, solubilizers, moisturizers, emollients, anesthetics, colorants, perfumes, preservatives, seeds, broken seed nut shells, silica, clays, beads, luffa particles, polyethylene balls, mica, pH adjusters, processing aids, and combinations thereof.

[c7] 7. A composition according to claim 1 wherein a cosmetically acceptable delivery system or a carrier base can be selected in the form of a lotion, cream, gel, spray, thin liquid, body splash, mask, serum, solid cosmetic stick, lip balm, shampoo, liquid soap, bar soap, bath oil, cologne, hair conditioner, salve, collodion, impregnated patch, impregnated strip, skin surface implant, and any other such cosmetically or pharmaceutically acceptable topical delivery forms.

[c8] 8. The compositions according to claim 1 wherein the cosmetically or pharmaceutically acceptable delivery system can be traditional water and oil emulsions, suspensions, colloids, microemulsions, clear solutions, suspen-

sions of nanoparticles, emulsions of nanoparticles, powders, or anhydrous compositions.

[c9] 9. A composition according to claim 2 wherein,
(i) From about 0.0001% to about 60% of at least one tyrosinase substrate composition for melanin synthesis boost, and
(ii) From about 0.0001% to about 20% of at least one tyrosinase activator composition and,
(iii) From about 0.0001% to about 40% of at least one skin surface coloring composition, and
(iv) From about 1% to about 99% of a cosmetically or pharmaceutically suitable carrier composition or delivery system.

[c10] 10. A composition according to claim 2, wherein skin surface coloring composition can be selected from, but not limited to dihydroxyacetone (DHA), lawsone, juglone, erythrulose, glyceraldehyde, 6-aldo-D-fructose, hydroxymethylglyoxal, mucondialdehyde, malealdehyde, substituted succindialdehydes, methylglyoxal (pyruvaldehyde) and substituted 4,4'-dihydroxypyrazolin-5-ones, henna, various Arianor dyes, melanin, caramel, charcoal, and combinations thereof.

[c11] 11. A composition according to claim 2 wherein cosmet-

ically or pharmaceutically acceptable delivery system or carrier base can optionally include additional skin beneficial ingredients selected from skin cleansers, surfactants (cationic, anionic, non-ionic, amphoteric, and zwitterionic), skin and hair conditioning agents, vitamins, hormones, minerals, plant extracts, anti-inflammatory agents, concentrates of plant extracts, emollients, moisturizers, skin protectants, humectants, silicones, skin soothing ingredients, analgesics, skin penetration enhancers, solubilizers, moisturizers, emollients, anesthetics, colorants, perfumes, preservatives, seeds, broken seed nut shells, silica, clays, beads, luffa particles, polyethylene balls, mica, pH adjusters, processing aids, and combinations thereof.

[c12] 12. A composition according to claim 2 wherein a cosmetically acceptable delivery system or a carrier base can be selected in the form of a lotion, cream, gel, spray, thin liquid, body splash, mask, serum, solid cosmetic stick, lip balm, shampoo, liquid soap, bar soap, bath oil, cologne, hair conditioner, salve, collodion, impregnated patch, impregnated strip, skin surface implant, and any other such cosmetically or pharmaceutically acceptable topical delivery forms.

[c13] 13. The compositions according to claim 2 wherein the cosmetically or pharmaceutically acceptable delivery sys-

tem can be traditional water and oil emulsions, suspensions, colloids, microemulsions, clear solutions, suspensions of nanoparticles, emulsions of nanoparticles, powders, or anhydrous compositions.